DOCUMENT RESUME

ED 291 732 SP 030 002

AUTHOR Weade, Regina; Evertson, Carolyn M.
TITLE The Construction of Lessons in Effective and Less Effective Classrooms.
SPONS AGENCY Office of Educational Research and Improvement (ED), Washington, DC.
PUB DATE [88]
GRANT NIE-G-83-0063
NOTE 62p.; This study was also supported by the Arkansas Department of General Education.
PUB TYPE Reports - Research/Technical (143)

EDRS PRICE MF01/PC03 Plus Postage.
DESCRIPTORS *Academic Achievement; *Classroom Techniques; *Instructional Effectiveness; Learning Strategies; *Lesson Observation Criteria; Lesson Plans; Secondary Education; *Teacher Effectiveness; Teaching Methods

ABSTRACT

This study examined relationships among teachers' management effectiveness ratings, student achievement, social and academic participation structures, patterns of instructional sequencing, and teachers' contributions to thematic development in classroom lessons. Representative case samples were selected to explore effective and less effective management and instructional practices in four junior high school English classrooms. The cases were selected on the basis of identified differences among teachers on measures of observed management effectiveness and student achievement. Patterned differences across classrooms were identified in: (1) the demands placed on students to interpret subtle changes in their rights and obligations for participating; and (2) the development of a conceptual framework to guide academic participation and meaning construction processes. Rank order comparisons suggested that effective management is necessary, but not sufficient, to bring about student achievement gains. Implications are provided as a set of questions to guide instructional planning and reflection. (Author/JD)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED291732

THE CONSTRUCTION OF LESSONS IN EFFECTIVE AND LESS EFFECTIVE CLASSROOMS

Regina Weade
Department of Instruction and Curriculum
University of Florida

Carolyn M. Evertson
Department of Teaching and Learning
Peabody College, Vanderbilt University

SP 030 002

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

R. Weade

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☐ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

BEST COPY AVAILABLE

Acknowledgments

The study from which this paper is drawn was supported in part by the National Institute of Education (OERI) grant NIE-G-83-0063 and by the Arkansas Department of General Education, Little Rock, AR (Principal Investigator: Carolyn M. Evertson). The opinions expressed herein are those of the authors and do not necessarily reflect the position or policy of either agency. No official endorsement should be inferred.

Abstract

This study examined relationships among teachers' management effectiveness ratings, student achievement, social and academic participation structures, patterns of instructional sequencing and teachers' contributions to thematic development in classroom lessons. Representative case samples were selected to explore effective and less effective management and instructional practices in four junior high school English classrooms. Patterned differences across classrooms were identified in a) the demands placed on students to interpret subtle changes in their rights and obligations for participating, and b) the development of a conceptual framework to guide academic participation and meaning construction processes. Implications are provided as a set of questions to guide instructional planning and reflection.

THE CONSTRUCTION OF LESSONS IN EFFECTIVE AND LESS EFFECTIVE CLASSROOMS

The relationship between classroom management and instruction has been elusive. Practitioners and educational researchers have traditionally viewed effective classroom management as a matter of first order importance, e.g. as a necessary condition for effective teaching and bringing about student learning (Borg & Ascione, 1982; Evertson, Emmer, Sanford & Clements, 1983; Emmer, Sanford, Clements & Martin, 1983). More recently, however, observers have noted that as they view events and activities in the real time and space of the classroom, distinctions between management and instruction become blurred (Zumwalt, 1986). As they occur in classrooms, these processes are intertwined, intermingled and in continual dynamic relation (Brophy, 1985; Erickson, 1986; Griffin, 1986; Weade, 1987).

The central argument presented here is that the conception of management and instruction as separate domains presents a false dichotomy. As students and teacher work together to construct lessons and to reach instructional goals, management and instructional processes are co-occurring. In terms of what is being accomplished as actions and interactions evolve, a variety of meanings are being constructed simultaneously. At one level, expectations for appropriate social participation are being signalled. These messages provide information about who may talk, when, where, about what, to whom, and in what ways in the evolving lesson. The resulting pattern of expectations has been referred to as the social task structure (Erickson, 1982, 1986; Green & Weade, 1987; Phillips, 1982). At another level, yet at the same time, information is provided about the academic content to be learned. An

academic task structure (Doyle, 1986) is embedded within the social task structure (Erickson, 1982, 1986).

Adding to the complexity of these co-occurring demands is the fact that social and academic task structures do not remain static. Rather, as participants move from topic to topic and from activity to activity, expectations for appropriate participation are continually shifting in both overt and subtle ways (Evertson & Weade, in press; Green & Weade, 1987; Green, Weade & Graham, in press). These shifts may occur even when the physical setting and physical organization remain the same. For instance, when a lesson moves from "taking" a quiz to "checking" the quiz, students are expected to read and interpret changing social expectations (e.g., who may talk to whom, about what, etc.) and changing academic expectations (from reading quiz items and writing responses, e.g. constructing text, to reading responses and verifying accuracy (Weade & Green, in press). Thus, descriptions of lessons such as "whole group", "review", "direct instruction", or "recitation" provide only superficial labels. They fail to fully portray what is required for appropriate participation, demonstration of social and academic competence, and learning.

It is unfortuntely easy to assume that the social participation structure is simply another way of discussing classroom management processes and, likewise, that the academic task structure is just a substitute way of describing instructional processes. This assumption serves to maintain a dualistic view of teaching/learning events and to neglect the matter of dynamic and evolving interplay between the two. For instance, when a recitation lesson is examined only in terms of conversational exchanges and the rules governing turn-taking, e.g. in

terms of its social dimensions, the influence of the academic content on the social organization may be overlooked. As the academic content evolves, its cognitive demands, variable levels of difficulty, and assorted curricular dimensions such as the structure of the materials, may be responded to through adjustments in the social organization of the lesson (Green & Harker, 1982; Morine-Dershimer, 1985; Weade, 1987; Weade & Green, in press). The demands of social participation and academic participation, each serving as context for the other, provide both supports and constraints toward what will occur and what will be accomplished in the lesson being constructed.

The observation of social and academic participation structures brings with it a set of perspectives that permit indepth examination and continuing analyses of lesson construction processes (Bloome, 1987; Cazden, 1986; Edwards & Westgate, 1987; Erickson, 1982; Green, 1983; Heap, 1985a; Heath, 1982). These perspectives, in turn, provide ways of making visible selected features of the intricate balance between social and academic task structures. The purpose in this article is to illustrate a focused approach toward looking closely at what happens through the actions and interactions of teacher and students, and what can be learned about the everyday, ordinary events of classroom life.

Data Bank.

Data reported here resulted from continuing analysis of findings in an earlier study of the effects of training teachers in principles of effective classroom management (Evertson, 1985; Evertson, Weade, Green & Crawford, 1985). Consistent and significant treatment effects on

teachers' management behaviors were indicated. The trained teachers demonstrated clearer descriptions of lesson objectives and lesson content, more efficient and appropriate classroom procedures and routines, greater consistency in dealing with student behavior, and a more task-oriented classroom focus than untrained teachers. Support was also evident for the indirect effects of the classroom management training on student achievement outcomes. That is, statistically higher achievement gains on standardized and district-wide criterion-referenced tests were identified for students in the trained teachers' classrooms.

The data bank collected for the training study provided an opportunity for further in-depth examination and post hoc analyses of the quality of instruction in 16 junior high school English and math classrooms. Observational records of six lessons in each of the sixteen classrooms included: (a) narrative notes with periodic time designations and class activity descriptions, (b) classroom rating scales, (c) student engagement ratings, (d) pre- and post achievement test scores on standardized and criterion-referenced tests in English and math, and (e) verbatim audiotapes and typescripts for each classroom observation. In addition to over 50 hours of audiotape recordings of classroom dialogue, access was also available to curriculum and textbook materials used in any given lesson, and to follow-up interviews with teachers and district administrators.

In-depth, focused investigations of the data set were conducted to provide detailed descriptions of lesson structure, instructional sequencing and patterns of teacher-student-materials interactions in each selected classroom (see Note 1). These patterns could then be

examined in relation to the management and student achievement variables. That is, comparisons and contrasts could be drawn between effective and less effective teachers in a) the manner of signalling students' rights and obligations for appropriate participation, and b) introducing, monitoring and facilitating development of the academic content of classroom lessons. As findings from this first set of comparisons evolved, the need for the second set became evident. Investigation of the teachers' unique contributions to thematic development of academic content in their lessons served as a means of further exploring and substantiating an identified pattern of relationship between management effectiveness and instructional effectiveness.

Specific questions addressed in these analyses included:

1. What are the similarities and differences among effective and less effective teachers in the distribution and sequencing of social and academic tasks in classroom lessons?

2. What are the similarities and differences among effective and less effective teachers in the frequency and nature of academic themes signalled to support academic task demands.

Sample Selection.

A sub-sample was drawn from the 16 classrooms (9 English teachers and 7 math teachers) observed in the management training study. Sampling objectives included representation of both effective and less effective classroom managers, based on observers' ratings, and effective and less effective instruction, based on student achievement outcomes. Each of these dimensions, sampling criteria and selection procedures are outlined below. Additional sampling objectives specified representation

across two junior high schools involved in the training studies and inclusion of both trained (experimental group) and untrained (control group) teachers. The two junior high schools, serving all students in grades 7-9 in a district composed of 60% white, 33% black, and 7% Mexican-American students, are located in southwestern Arkansas. As a control for subject matter differences, only English teachers were included in the sub-sample. The English classes were referred to within the district as regular level classes. Students were neither outstanding achievers nor were they regarded as needing special remediation programs.

The Management/Achievement Typology. A typology, presented in Figure 1, was constructed to facilitate comparisons across the management effectiveness and student achievement dimensions. For both dimensions, natural breaks in the rank order data were used to designate dividing points between effective and less effective. Theoretically, teachers could then be classified within one of four cells, i.e. effective management/effective achievement, less effective management/effective achievement, effective management/less effective achievement, and less effective management/less effective achievement.

Descriptions of the 9 English classrooms from which the sub-sample was selected are contained within the typology (see Figure 1). Letter designations for the selected teachers, e.g. A, B, C, and D (assigned following selection), reflect relative position on both the management and the achievement dimensions. Rank orders for these teachers were parallel. Summary data presented in Table 1 show classroom observers'

ratings averaged over 6 observations on 23 management and student engagement variables for each of the four selected teachers.

Insert Figure 1 and Table 1 about here.

Achievement test score data varied among the 16 teachers by grade level and subject matter. Rank order comparisons across all classrooms were therefore not possible. This difficulty reflected a "real world" situation in which measurement is typically not geared to research purposes. The researchers also preferred not to intrude on normal operations in the school district any more than necessary. District administration of a criterion-referenced test (CRT) in language arts involved seventh and eighth grade students. Prescores on a State Achievement Test of Basic Skills and postscores on the Stanford Research Associates (SRA) standardized, norm-referenced achievement test were available for the ninth grade English classes. Comparisons among the ninth grade classrooms carried little meaning, however, due to large within-class variances. An alternative strategy, one that would begin with examination of within-class variability at the level of single classroom groups (rather than multiple classroom groups aggregated by individual teacher), was clearly needed.

For the alternative ranking technique, which was eventually used for assessment of instructional effectiveness, achievement level categories of high (71-100), middle (31-70), and low (1-30) were arbitrarily designated for all observed classrooms. In this way,

achievement level distributions and group mobility over time within a single class could be examined. Scores for individual students, arranged according to group designation at pre- and at posttest, are provided in Tables 2 - 5. Percentage changes over time among the high, middle and low groups are summarized within each table. Comparisons across the four selected classrooms reveal a pattern of upward mobility for Teachers A and Teacher B and no change in Teacher C's classroom. In Teacher D's classroom there were no gains in group status; 12 students showed no change between pre- and posttest and 11 students scored lower at posttest than at pre-test. Thus, a rank order progression across the four classrooms became visible. Since these comparisons involved only the classroom groups that had been observed in the training study (e.g. the first period class for Teacher A; the third period class for Teacher B, etc.), and since the investigations that were to follow involved only these classrooms, the alternative ranking technique provided a more robust and parsimonious strategy than traditional alternatives, e.g. examination of regression residuals with group means "pooled" across multiple classrooms for each teacher.

Insert Tables 2 - 5 about here.

Additional factors also contributed to selection of Teacher A and Teacher D. Teacher A, who ranked consistently higher on key observational measures than any of the other 16 teachers, was selected as an outlier. External factors prompting her selection included status

as a runner-up in the state teacher of the year competition and her reputation within both school and district as an excellent teacher. Teacher D's rankings, in contrast, were consistently the lowest in the larger sample. Teachers B and C represent less extreme cases on both dimensions. Teacher C ranked near a mid-point on the management dimension; she can be described as a moderately effective classroom manager.

The Relationship between Management and Instruction: An Emergent Finding.

The empty cell in the management/achievement typology is representative of the larger sample. There were no cases in which a teacher (either trained or untrained) could be classified as a less effective manager, but who had also demonstrated notable achievement gains. This pattern may be an anomolie. It may also suggest that training and instructional effectiveness, as criteria for sub-sample selection, are confounded. However, the pattern can also be viewed as a reflection of theoretically expected differences between teachers trained in classroom management and those not trained. Multiple cases were available for selection into the other three cells of the typology, but the intersection between less effective management and effective achievement drew an absolute blank. Cases in which control group (untrained) teachers outranked trained teachers were available, but differences were not significant. The typology therefore mirrors support described elsewhere (Evertson, 1985; Evertson et al., 1985) for the existence of a causally dependent relation between effective classsroom management and student achievement. In addition, the pattern

suggests that effective classroom management is necessary but not sufficient to bring about student achievement gains. The difference between what is necessary and what is sufficient emerged as a central concern in the set of case comparisons that were to follow.

Methodology

Type case analytic procedures (cf. Erickson & Shultz, 1981; Green, Weade, & Graham, in press) were used for the analyses reported in what follows. Initially, single class period lessons that had taken place in early November in the year of the training study (1982-83) were selected for each teacher. This November sample was selected on the basis of a principled assumption that classroom management structures, norms and procedures would be "in place" and well instantiated in all classrooms by this point in the school year. In addition, teachers in the trained group had completed participation in follow-up "booster" workshops designed to provide continuing support and to extend training held prior to the opening of school.

Following analytic procedures developed by Green (1977) and Green and Wallat (1981), detailed descriptive accounts of lesson structure were generated for each of the four November lessons. The resulting type case models existed as four separate, situation-specific inventories of recurrent patterns and themes in the unfolding lessons. They also served as a base from which particular instructional variables, e.g. interactions, instructional units, topical content, etc. could be identified for the continuing analyses. In addition to the authors, two other members of the research team became involved in

establishing inter-coder agreement on designation of analytic units. Early comparisons yielded 85 - 95% agreement; all differences were then documented and resolved through recourse to the theoretical framework guiding the analytic system.

Patterns of interaction and instructional sequencing were further explored within each case to identify what was ordinary or normal in each evolving lesson, frequencies of occurrence of patterns within and across different phases of each lesson, and consistency and variability in the identified patterns. Based on sample selection, the type case models were referred to as descriptions of effective management and effective instruction (two cases), effective management and less effective instruction (one case), and less effective management and less effective instruction (one case).

Representativeness of the November sample. Estimates of the representativeness of the November lessons were obtained by comparing and contrasting identified patterns in the type case models with the larger sample of six lessons for each teacher. In this way, questions about stability and variability in teaching style and management and instructional processes could be explored and the influence of factors such as time of year and the nature of lesson content could be assessed. Thus, the representativeness of the Novemeber lesson sample was not an a priori determination. Rather, assessment of representativeness was produced as an outcome of analyses that had been initiated on the basis of a principled selection of sample lessons (e.g. assumptions that management structures, norms and procedures would be well established by November). (See Heap, 1984, 1985[b] for discussion of distinctions between

the context of discovering how classroom events are organized and accomplished, and the context of presentation of findings that result from such analyses).

Evidence on the adequacy of the November sample was needed, nonetheless, before credible cross-case comparisons could be drawn among the four teachers. Explorations proceeded from the November type case descriptions to earlier points in the school year in order examine how management structures had come to be accomplished in each classroom, and finally, in a back-and-forth manner, to later points in the school year to assess stability and variations over time. For both effective and less effective teachers, the manner of establishing social procedures (i.e. turn-taking) and eliciting student participation remained stable across lessons. For the effective teachers, variations in style paralleled topic-by-topic and item-by-item variations in the academic content, students' familiarity with the content (new vs. review), and the level of difficulty of the content. For less effective teachers, variations in style occurred when procedural expectations for students were not clear and when functional procedures were necessary for the lesson to proceed (see Evertson & Weade, in press, and Evertson et al., 1985, for detailed accounts of methods and findings).

A variety of charts were subsequently generated to summarize the findings and to reveal and further explore patterns of interaction between teacher and student, students and other students, teacher and materials, and among teacher, students, and materials. Several aspects of lesson management were considered in each case analysis; findings

reported below provide evidence on (a) relationships between academic and social task demands, and (b) thematic development in effective and less efffective classrooms. These findings are intended to disclose what can be learned about the teacher's unique contributions to lesson construction in terms of instructional sequencing and the extent of opportunities provided for students to acquire academic knowledge.

Findings and Discussion

Social and Academic Participation Tasks.

Examination of lesson structure revealed that classroom lessons evolve as a series of lesson phases, each varying in terms of the demands placed on students for appropriate participation. Further exploration revealed a co-occurrence of both social demands (e.g. speak when called on) and academic demands (e.g., name the verb in the sentence) within lesson phases. This suggested that lesson is not a unitary phenomenon. Rather, classroom lessons are structured in terms of highly differentiated parts through which the teacher, more or less consistently and continually, shifts the demands for student participation and demonstration of procedural and academic competence. Similar findings on the multi-faceted nature of lessons have been reported in the classic work of Gump (1967) and, more recently, Stodolsky (1984a, 1984b), both of whom proceeded from a social interaction perspective in which the activity segment was taken as the basic unit of analysis.

Comparisons across the four selected lessons suggested a pattern of relationship between lesson phase sequencing and the rank order placements of teachers on the classroom management and student

achievement dimensions. Summary maps, presented in Figures 2 - 5, were constructed to reveal the contrasts. As illustrated, social and academic features of the demand structures were categorized separately for analytic purposes. A mapping convention, the boldface broken arrow ( ), was adopted to mark the existence of a shift in demand at the boundaries between lesson phases. In cases in which the change in social demand required both a shift in materials (e.g., get workbooks from the shelf), and in the social participation structure (e.g., bid for turn), double broken arrows ( ) are indicated. With respect to academic demand structures, double broken arrows are indicated when the change in topic is major, e.g. from spelling to grammar. Frequencies of changes in demand structure are tallied as marginals, both columns and rows, to provide a quantitative basis for comparisons across teachers. A brief case-by-case description follows.

Insert Figures 2 - 5 about here.

Teacher A. Examination of this grammar review lesson (see Figure 2) reveals two characteristics. First, there is a comparatively tight, sequential progression in the evolving academic demand structure. Students first identify principal parts of verbs, and then the verb tense when given a principal part. Phase 3 requires the application of knowledge from the first two phases as students begin to work at the sentence level (words in context). The progression continues through the remaining two phases; the level of complexity gradually increases, and yet each of the later phases also focuses on a different aspect of verb usage. Second, the social task requirements do not change

appreciably. In some phases, students are called on by name at random, and in others, students raise hands to bid for turn. The entire lesson requires working with a single sheet of paper, moving through the items one by one, section by section. The social demand changes most noticeably in the last phase when it becomes 'listen as the teacher gives the answers' (the teacher verbally acknowledged that time was running short). Marginal frequencies indicated in Figure 2 suggest an even balance between changes in social and academic demands.

Teacher B. As indicated in Figure 3, the phase structure reveals a sequential progression in the academic task demand. Changes in the social tasks, however, require shifting from test paper, to "the paper just returned to you" (during the preceding lesson phase), to the workbook (distributed by front row students), and to a new sheet of paper in the final phase of the lesson. Teacher B ranked second on both management and achievement dimensions. The relationship between changing social and changing academic tasks can be summarized quantitatively as a ratio, e.g. 5 : 3. In comparison with Teacher A's lesson, there is an increased demand placed on students in Teacher B's classroom to interpret changes in their rights and obligations for appropriate social participation.

Teacher C. The pattern of lesson phase sequencing, summarized in Figure 4, reveals dramatic shifts in both social and academic tasks. Academically, the lesson shifted from spelling to verbs at the [illegible], between phases 2 and 3. In addition,, the teacher's opening series of messages in phase 3 indicated that the introductory part of the lesson on verbs had been presented two days earlier, with no work on verbs on

the intervening day. Although this shift between days is not reflected in Figure 4, it was apparent that changes in academic tasks were major, both across days and within this lesson. Similarly, changes in social tasks required substantial transitions between lesson phases. Students were required to move from spelling paper used in the first two phases, to text and workbook materials used in a discussion phase that followed. The discussion phase (phase 3) required bidding for turn; students were called on at random in phase 4. Phase 5 required a unison/choral response pattern with no bidding. Phase 6 required shifting back to teacher designation of individual responders, as well as movement from the books to a focus on the chalkboard. Finally, students shifted to a written exercise for phase 7 that required a return to the workbooks. The total frequency of both social and academic demand shifts (i.e. 16) in Teacher C's lesson is higher than for any of the comparison teachers. Additionally, the shifts in social demand outnumber the shifts in academic demand, suggesting a progression across the three lessons described to this point (Teacher A - 4 : 4; Teacher B - 5 : 3; Teacher C - 10 : 6). Teacher C's lesson represents effective management (moderately effective in rank order placement) and less effective instruction (based on student achievement gains).

Teacher D. A progression in the academic tasks was identified in this lesson, but only two demand shifts were required (see Figure 5). The social participation task structure, in contrast, is complex. As indicated for phase 1, the day's activities were organized for three separate groups. Hence, although the researchers followed only the group that stayed with the teacher for the remainder of the lesson,

three separate phase structures were evolving simultaneously within the classroom. While the teacher directed Group 1 in the spelling lesson, a student could be heard in the background reading a separate list of spelling words for another group. A third group was involved in a journal writing activity. As indicated in Figure 5, the boundary between the first two phases reflects a signalled change for each group of students as they moved into the three separate activities. Subsequent boundaries reflect only transitions demanded of students in the group that remained with the teacher. The illustration in Figure 5, therefore, provides a conservative estimate of the complexity of this lesson. The ratio of social demand shifts to academic demand shifts (8 : 2) is extreme. Teacher D's lesson had been selected as representative of less effective management and less effective instruction.

Summary. Two patterns are evident in the comparisons across classrooms. The first is seen by comparing the combined total frequency of changes in academic and social tasks: Teacher A - 8, Teacher B - 8, Teacher C - 16 and Teacher D - 10. Although a consistent progression is not indicated, the data suggest that differences exist in the expectations placed on students in effective and less effective classrooms. In the less effective classrooms, teachers initiate a higher number of transitions. Students, in turn, must interpret changes in what they are to do and how they are to proceed more frequently than students in the effective classrooms. In the effective classrooms, the focus at any given point on "what we are doing now" is comparatively

more sustained, more enduring, and less transitory than in the less effective classrooms.

The second pattern in these data is seen by comparing the ratios between changes in social tasks and in academic tasks (i.e., social task : academic task) in each of the four classrooms. A consistent progression is evident:

Teacher A - 4 : 4
Teacher B - 5 : 3
Teacher C - 10 : 6
Teacher D - 8 : 2

The pattern suggests that as the teacher's effectiveness rank decreases, there is an increase in the relative proportion of demands placed on students to interpret changes in social expectations. Thus, students in the less effective classrooms must attend to shifting expectations about who can talk, when, about what, to whom, and in what ways in order to know how to participate appropriately -- and these expectations change more frequently than the academic tasks. The instructionally effective teachers, in comparison, orchestrate a relative balance at the major transition points in their lessons. At these transition points, the demands placed on students to interpret changes in their rights and obligations for academic participation are not "overshadowed" or "overcrowded" by shifting social demands.

In this analysis, structural characteristics of selected lessons in effective and less effective classrooms have been investigated. Similarities and differences in ways of sequencing instruction have been examined. The illustrations reveal that classroom lessons evolve as a series of differentiated parts through which the teacher, more or less

consistently and continually, initiates changes in what students are expected to do in order to participate appropriately and to demonstrate competence. These changes or adjustments, frequently referred to as lesson transitions, occur when shifts in expectations for participating are relatively more dramatic than subtle. Nonetheless, although lessons phases (the "parts" of the lesson) have been identified, the boundaries between phases have received the most attention in this analysis. Further exploration of the academic substance within the lesson phases was warranted. Also, further investigation was needed to address questions about the teachers' unique contributions to the construction and negotiation of academic meanings in these classroom lessons.

Thematic Development: The Construction of Academic Meanings

From a social interaction perspective, classroom lessons are a product of the actions, interactions and conversations of teacher and students; they are dynamic and evolving. The academic content of a lesson, therefore, is not a given, as if it were listed in a graded course of study or in a scripted lesson plan. Rather, academic content is signalled and various interpretations are supported or rejected through the participants' talk and actions. The content, as well as its meaning, evolves on a moment-by-moment, item-by-item or theme-by-theme basis. Viewed in this way, academic meanings are not simply extracted by students; they are constructed. In order to gain access to the academic content of a lesson, participants must continually monitor the topic being considered, what is said or written about the topic, what gets accepted or rejected in relation to the topic, and how the teacher and other students work with the information provided. By viewing the

interactions of the teacher, student(s) and materials-in-use, participants in classroom lessons receive information about what is important to know, what is meant, and how to understand the academic requirements for further participation and learning.

This set of findings focuses on the frequency and nature of academic themes signalled by each of the four teachers as they provided information about how students should approach, think about, understand, and accomplish the academic task at hand. The concept of "theme", as a basic unit of analysis, was adopted from earlier work on the study of conversational coherence and comprehension in teacher-student(s)-text interactions (Green & Harker, 1982; Green, Harker & Golden, 1987; Green & Harker, in press). Reference to Figure 6, described in greater detail below, provides a way of illustrating the identification of content themes signalled by Teacher A. An academic theme consists of a message (i.e. "'had' means past perfect", "think about principal parts", etc.) that is conceptually and conversationally tied to both a designated academic task (i.e., name the verb tense for each verb or verb phrase) and the particular topic or item of content under consideration (e.g., "had taught", "held", "lets", etc.). A line extending down from each stated theme suggests that it remains "in place", as part of an evolving conceptual scaffold, as the lesson continues. These themes potentially contribute to students' opportunities for learning in that they provide cues, clues and strategies to assist students in understanding the task and in demonstrating academic knowledge. As the lesson unfolds, themes become more or less developed as part of a conceptual framework or structure from which students are expected to reason, to ascertain what

is academically appropriate in responding, and in general, to demonstrate academic competence.

Insert Figure 6 about here

Sample Selection. Since several factors (e.g. students' prior knowledge, materials, etc.) influence the meanings that are potentially constructed in classroom lessons, sampling strategies were needed to isolate the teachers' unqiue contributions to thematic development. A sub-sample of single lesson phases, one from each of the November lessons, was selected. In drawing this sub-sample, all lesson phases were examined in search of similarities in social tasks, e.g. the stated and implied "rules" about who can talk to whom, when, where, about what, and in what ways. The intention was that if similarities in social expectations could be identified, this variable could then be "held constant" to permit systemmatic exploration of variations in academic participation. Summary descriptions of the selected lesson phases, one for each teacher, are presented in Table 6.

Insert Table 6 about here.

Academic tasks in the selected lesson phases were, respectively for Teachers A, B, and C: to name the verb tense in a given verb phrase; to name the verb phrase, main verb, and auxiliary verb in a given sentence; and to name the main verb in a given sentence (see Table 6). In Teacher D's classroom, students were to pronounce and then spell a series of

three to six words, in turn, using a technique known as "assimilated spelling." For each item in the workbook exercise, the given information included a two letter prefix, a hyphen, and a base portion of the word [e.g., "af- lowance" (sic); correct oral response: allowance, a l l o w a n c e]. The academic task for students in Teacher D's classroom was not a rote task. It required application of the "rules" for assimilated spelling given in the workbook, just as students in comparison classrooms were expected to apply "rules" about verb usage. Each of the four selected lesson phases also involved an oral, in turn, item-by-item review of a workbook/homework exercise or test that students had completed individually at an earlier time. As indicated in Table 6, the length of the lesson phases varied. Descriptive data is also provided on frequency and length of instructional sequences (items), teacher/student interactions (IUs), and mean number of interactions per item. This analysis focuses on the frequency and nature of themes signalled in each teacher's talk about the items being reviewed, and the logical coherence of the talk as it evolved.

Summary charts of the content themes signalled by each teacher in the selected lesson phases are presented in Figures 6 - 9. A brief case-by-case description follows.

Insert Figures 7 - 9 about here.

Teacher A. Figure 6 provides a list of the verb phrases on the second section of the test (topic), an identification number (ISU), and the length (in seconds) of discussion about each item. Content themes

signalled in the teacher's talk are summarized in the center section of the figure. The test, taken on a preceeding day, had been graded and returned to the students so that they could "check" their answers. As indicated, the talk about the first item (ISU 22) contained a cue about how to recognize a past perfect verb tense: "'had' means past perfect." For the next item, "held", the teacher told students to think about the principal parts of a verb in order to know its tense. This macro level analysis of the talk revealed 10 different themes signalled by Teacher A in this lesson phase; some were repeated (see ISUs 32, 34, 39, 43, 48, 49 and 50: a "be" verb and a past participle indicate the passive tense). These themes were offered as strategies that students could use to help them check and understand their answers and their errors on grammar tests and to insure correct usage, both orally and in writing.

The teacher's talk provides part of an evolving conceptual framework in this lesson. This framework gradually unfolds over the course of the lesson for students to use in reading, interpreting, negotiating, and understanding the requirements of the academic task. The teacher signals themes through orchestration of question-response sequences. She also includes "mini-lectures", typically less than 30 seconds in length. In interaction, the questions "cycle" and overlap. That is, questions frequently build on earlier questions and/or student responses (e.g., "How did you know that?"; "What did you have to think about to do this one?"). In this way, both teacher reasoning and student reasoning become publicly available to all. In this lesson phase, the establishment of interactive opportunities to display thinking and reasoning enable the students and teacher to continually

monitor, examine, negotiate, modify, suspend and re-examine an evolving conceptual framework about how to recognize verb tenses (see Note 2).

Teacher B. Teacher B signals four themes as she guides students through the items on "yesterday's" homework. As indicated in Figure 7, these included: (a) a verb phrase can have one, two or three words; (b) other words that are not verbs can interrupt the verb phrase; (c) "the secret for success in English is what does a word do for that sentence"; and (d) "verbs are wants, action, existence and occurrence." The idea that "other words" can interrupt a verb phrase appears as a major theme: it is re-signalled six times. The signals provided by Teacher B, introduced through "mini-lectures", provided a set of reasonable and practical strategies for students to use in completing the academic task.

Teacher C. In Teacher C's selected lesson phase, three content themes were signalled repeatedly: (a) use the "he/they" test, (b) a verb is something you can do, and (c) some words are not verbs. Figure 8 also indicates a contradiction in the teacher's reasoning as the lesson phase evolved. In ISU 63, the teacher introduces this lesson phase by telling students to use the "'he/they' test" to identify the verbs in the sentences on the chalkboard. Later, in ISU 69, an exception to the general applicability of the "'he/they' test" is explained by the teacher. Exploration revealed that the teacher had implemented a transition from workbook materials, used earlier in the lesson phase to introduce the "'he/they' test", to a list of sentences on the chalkboard. The sentences had been taken from a different source. The teacher had failed to anticipate that 6 of the 15 sentences on the board

contained various forms of the verb "to be." Application of the "'he/they'" test to "be" verbs is problematic; it doesn't work.

Further exploration of thematic coherence in this lesson phase revealed additional conflicts. For instance, the teacher's cue that a verb "is something you can do" (ISU 67) also does not hold true for "be" verbs (i.e., "be" verbs indicate existence, not action). In addition, relevant themes were available and were being used by the students that the teacher failed to either acknowledge or signal. For ISUs 65, 73 and 75, students applied the "'he/they' test" to the words "once", "bright" and "forward" [e.g. "he onces; they once (sic)", "he forwards (the football)"]. Students were attempting, as indicated in the oral delivery, to force verb status on adjectives and adverbs. They were applying an unstated, implicit rule of grammar about the function of a word within the context of a sentence.

The analysis of Teacher C's lesson phase demonstrates the probabilistic nature of lessons for both teacher and students, and some possible sources of uncertainty and confusion. The examples suggest that students base their responses on rational consideration of signalled cues. Ability may not be the only factor that accounts for student performance; errors in participation and in demonstration of knowledge may stem from errors in communication. In this sense, errors in communication may include both incompletely signalled cues as well as faulty choices about which cues could be signalled to add coherence to the lesson.

Teacher D. In this lesson phase, the teacher departs from the ordinary interaction pattern only once during 41 instructional

sequences. As indicated in Figure 9, she says "there are 2 Rs in correspondent."

The academic task in this lesson phase required students to use the rules of "assimilated spelling" in order to connect a prefix and base portion of a given word. These "rules" provided students with a basis for knowing when a double consonant was required for correct spelling, and what that consonant should be. Hence, academic themes were available, but the teacher did not orally reinforce these themes. Throughout the entire lesson, there was no mention of the techniques of "assimilated spelling." Instead, it appeared that students were either solely dependent on what they had possibly read the day before in the workbook, or that they were merging and spelling the words through rote recognition and/or guessing.

Summary. This analysis of the teacher's contribution to the construction and continual negotiation of academic meanings suggests a patterned progression of differences related to the effectiveness dimensions. In brief, as teacher rank decreases, the frequency of themes signalled by the teacher also decreases. These themes potentially contribute to students' opportunities for learning in that they provide cues, clues and strategies to assist students in understanding the task and in demonstrating academic knowledge.

These findings suggest that teachers signal relevant cues through direct "mini-lectures". At the highest level, an effective teacher also signals themes through question-response sequences in which the questions build on earlier questions and/or student responses. In this way, both teacher reasoning and student reasoning are made publicly

available to all. For the academically effective teacher, the establishment of public, interactive opportunities to display thinking and reasoning enable the participants -- both teacher and students -- to continually monitor, examine, negotiate, modify, suspend, and re-examine the evolving conceptual framework that is guiding academic participation. For the less academically effective teachers, there are severe limitations in the relative number of themes signalled and contradictions in signalled themes. There is also a failure to publicly acknowledge themes that are inherent in the task at hand or that are implicitly operational in the ways teacher and students are dealing with the academic task. For the less effective teachers, an evolving conceptual framework that could serve to guide the construction and continuing negotiation of academic meanings is either elusive, lacking in rational consistency, or non-existent.

Conclusion

The purpose in this study has been to investigate similarities and differences among four case examples of classroom and instructional management. The cases were selected on the basis of identified differences among teachers on measures of observed management effectiveness and student achievement. Rank order comparisons suggested that effective management is necessary, but not sufficient, to bring about student achievement gains. A sociolinguistic/ethnographic perspective on the nature of communications in classrooms was adopted to systematically explore these differences. The results suggest a set of relationships among the management and achievement variables, social and

academic participation structures, instructional sequencing and the teacher's contribution to thematic development in classroom lessons.

The findings indicate that the effective teachers orchestrated a relative balance between social and academic tasks -- in terms of the demands placed on students to interpret changes in these tasks. In the less effective classrooms, transitions demanding changes in social participation outnumbered demands for change in academic participation. Therefore, students were required to focus on the social more often than the academic in order to assess their rights and obligations for appropriate participation. Findings also indicated that the effective teachers signalled relevant cues to students about how to understand the academic task and what was required to demonstrate knowledge. In the less effective classrooms, the teacher's oral contributions to an evolving conceptual framework in the lesson were limited, and provided contradictions about how students were to accomplish academic tasks.

Generalizations cannot be inferred due to the limited size of the sample considered in this study. However, findings can be interpreted to suggest implications for practitioners interested in reflecting on their own instruction. Although direct prescriptions about what teachers should do are not possible, guidelines can be suggested. The following are presented as factors teachers might add to what they already consider in planning and conducting any classroom lesson.

* For <u>each</u> activity or event (e.g. reviewing a quiz, introducing new content, giving oral reports, doing problems at the board) that will take place in the lesson:

1. What is the social task demand, e.g. who can talk to whom, about what, where, when, in what ways and for what purposes?

   - How will groups (whole group, pairs, task-related groups) be organized?

   - Will a turn-taking system be needed? If so, how will it be organized (by the structure of the materials, by student initiative, by teacher designation of responder)?

   - What materials (papers, workbooks, textbook, writing implements) will be needed, and what will be necessary for students to assemble these?

   - What prior experiences do teacher and students share in doing the social task (e.g. the way we did this the last time)? To what extent was it successful the last time? What adjustments may be needed?

2. What is the academic task demand, e.g. what must be known, understood and produced to reach the instructional objective?

   - What prior knowledge will students need and use in accomplishing the task?

   - What are the sources of knowledge students will need to accomplish the task (e.g. concepts taught yesterday, "rules" given in the workbook)?

   - What is the new knowledge students will be acquiring?

   - What reasoning is required for students to accomplish the task?

   - How can strategies be made available to help students accomplish the task?

   - How will students demonstrate accomplishment of the task?

   - How can relationships between reasoning and task accomplishment be made visible?

   - How will errors in understanding be recognized and corrected?

3. What is the match between the social task demand and the academic task demand of each planned event? Will the social expectations facilitate and support academic participation?

* A classroom lesson consists of a series of activities. Given the set of social and academic tasks considered above, decisions are needed about how these events can be logically ordered and how they can become an integrated sequence of instructional events. Questions such as the following can be posed:

1. In the planned series of events, are the academic tasks related?
   - Is there a logical progression from one event to the next?
   - Are revisions or adjustments needed in the choice of events for this lesson?
2. Given this ordered set of academic tasks, is there a logical progression in the associated social task demands?
   - Will transitions (changes in materials, group organization, turn-taking procedures, expectations for responding) be complex?
   - Are revisions or adjustments needed in the choice of events for this lesson?

Planning for instruction and deciding what should happen does not insure that the lesson will proceed as planned. The plans provide only an entry framework. As the planned series of events begins to evolve, additional questions and concerns need to be addressed. These might include:

1. Have students interpreted both the social and academic requirements for participating? Are adjustments needed?
2. What cues or signals are being provided for students to guide their academic participation?
   - What academic themes are being signalled? Are these themes related to doing the academic task? What needs to be added?
   - Are the students using what is being signalled to accomplish the academic task? What needs to be added?
   - Is a conceptual framework evolving in this lesson? Is it relevant? Is it logical? Is it shared and available to all?

- If a particular student is asked to respond to a question in mid-lesson, will the student know the answer? What strategies will the student use to arrive at a response? Can this student, or another student, contribute a reason for the answer? Can students' provide a part of the framework that is guiding the construction of academic meanings?

3. What is being learned in this classroom?

The questions listed above suggest ways practitioners might think about and consider social and academic task demands as they plan and conduct instruction. These suggestions can also serve as guidelines for reflecting on what has happened after students leave the classroom. Since these guidelines follow directly from the findings reported in this article, the list of questions is not comprehensive. Nonetheless, it appears that the teachers whose classroom lessons were selected for this study might respond to each question quite differently.

BEST COPY AVAILABLE

Notes

1. A sociolinguistic/ethnographic perspective was adopted to guide the focused analyses. The intent was to make visible the social and academic demands for participating and learning, and to ascertain what members of a classroom need to know, understand, produce, predict and evaluate in order to participate appropriately and gain access to learning (cf. Bloome, 1987; Cazden, 1986; Edwards & Westgate, 1987; Erickson, 1982; Green, 1983; Heap, 1985a; Heath, 1982; Morine-Dershimer, 1985). Due to the manner in which data were collected, however, these analyses are neither a sociolinguistic analysis nor an ethnographic analysis. Instead, the methodology involves application of a selected constructs from sociolinguistics and ethnography to data that were available. Limitations on the kinds of analyses that could be done included: a) audiotape recordings of lessons could not include the visual, nonverbal features of classroom communicaton that may have contributed important meanings in these lessons; and b) the teachers were not involved as part of the collaborative team concerned with this phase of the research project. Additionally, teachers played no role in either influencing what research questions would be asked, in describing objectives or intentions for lessons, or in contributing interpretations of events following lesson observations.

2. Detailed accounts of findings for Teacher A's lesson have been reported elsewhere. See Weade and Green (in press) and Weade (1987) for description of teacher-student-materials interactions, and

findings related to processes of meaning construction and the general nature of communications in classrooms.

References

Bloome, D. (1987). Reading as a social process in a middle school classroom. In D. Bloome (Ed.)., Literacy and schooling. Norwood, NJ: Ablex.

Borg, W. & Ascione, F. (1982). Classroom management in elementary mainstreaming classrooms. Journal of Educational Psychology, 74 85-95.

Brophy, J. (1985). Classroom management as instruction: Socializing self-guidance in students. Theory into Practice, 24(4), 233-240.

Cazden, C. (1986). Classroom discourse. In M. C. Wittrock (Ed.), Handbook of research on teaching, (3rd ed.). (pp. 432-464). New York: Macmillan.

Doyle, W. (1986). Classroom organization and management. In M. C. Wittrock (Ed.), Handbook of research on teaching, (3rd ed.). (pp. 392-431). New York: Macmillan.

Edwards, A. D. & Westgate, D. P. G. (1987). Investigating classroom talk. Philadelphia, PA: Falmer Press.

Emmer, E. Sanford, J. Clements, B., Martin, J. (1983). Improving junior high classroom management. Paper presented at the annual meeting of the American Educational Research Association, Montreal.

Erickson, F. (1982). Classroom discourse as improvisation: Relationships between academic task structure and social participation structure in lessons. In L. Cherry Wilkinson (Ed.), Communicating in classrooms. (pp. 153-181). New York, Academic Press.

Erickson, F. (1986). Tasks in times: Objects of study in a natural history of teaching. In K. K. Zumwalt (Ed.), Improving teaching. (pp. 121-148). Washington D.C.: Association for Supervision and Curriculum Development.

Erickson, F. & Shultz, J. (1981). When is a context? Some issues and methods in the analysis of social competence. In J. L. Green & C. Wallat (Eds.), Ethnography and language in educational settings. Norwood, NJ: Ablex.

Evertson, C. (1985). Training teachers in classroom management: An experiment in secondary school classrooms. Journal of Educational Research, 79 (1), 51-58.

Evertson, C. Emmer, E., Sanford J. & Clements, B. (1983). Improving classroom management: An experiment in elementary classrooms. Elementary School Journal, 84, 173-188.

Evertson, C. & Weade, R. (in press). Classroom management and student achievement: Instructional stability and variability of two junior high English teachers. Elementary School Journal.

Evertson, C., Weade, R., Green, J. L., & Crawford, J. (1985). Effective classroom management and instruction: An Exploration of Models, Final Report. Washington D.C.: National Institute of Education. ERIC Document Reproduction Service No. 271 422.

Green, J. L. (1977). Pedagogical style differences as related to comprehension of performance: Grades one through three. Unpublished doctoral dissertation, University of California, Berkeley.

Green, J. L. (1983). Research on teaching as a linguistic process: A state of the art. In E. W. Gordon (Ed.), Review of research in education. (pp. 151-252). Washington D.C.: American Educational Research Association.

Green, J.L. & Harker, J.O. (1982). Gaining access to learning: Conversational, social , and cognitive demands of group participation. In L.C. Wilkinson (Ed.) Communicating in the classroom. (pp. 183 221). New York: Academic Press.

Green, J.L. & Harker, J.O. (Eds.) (In press). Multiple perspective analysis of classroom discourse. Norwood, NJ: Ablex.

Green, J. L., Harker, J. O., & Golden, J. (1987). Lesson construction: Differing views. In G. Noblit & W. Pink (Eds.), Understanding education: Qualitative studies of the occupation and organization. Norwood, NJ: Ablex.

Green, J. L. & Wallat, C. (1981). Mapping instructional conversations. In J.L. Green & C. Wallat (Eds.), Ethnography and language in eductional settings. Norwood, NJ: Ablex.

Green J. L. & Weade, R. (1987). In search of meaning: A sociolinguistic perspective. In D. Bloome (Ed.), Literacy and schooling. Norwood, NJ: Ablex.

Green, J. L., Weade, R., & Graham, K. (In press). Lesson construction and student participation: A sociolinguistic analysis. In J. L. Green & J. O. Harker (Eds.), Multiple perspective analysis of classroom discourse. Norwood, NJ: Ablex.

Griffin, G. (1986). Thinking about teaching. In K. K. Zumwalt (Ed.), Improving teaching. (pp. 101-114). Washington D.C.: Association for Supervision and Curriculum Development.

Gump, P. V. (1974). Operating environments in schools of open and traditional design. School Review, 82 (4), 575-593.

Gump, P. V. (1967). The classroom behavior setting: Its nature and relation to student behavior. Final Report. Washington D.C.: U.S. Office of Education, Bureau of Research. (ERIC Document Reproduction Service No. 015 515)

Heap, J. (1985a). Discourse in the production of classroom knowledge: Reading lessons. Curriculum Inquiry, 15(3), 245-279.

Heap, J. (1985b). Getting there from here, in ethnomenthodological research: Steps and maxims. Paper presented at the annual meeting of the International Reading Association, New Orleans, LA.

Heap, J. (1984). Ethnomethodology and Education: Possibilities. The Journal of Educational Though, 18(3), 168-171.

Heath, S. B. (1982). Questioning at home and at school: A comparative study. In G. Spindler (Ed.), Doing the ethnography of schooling: Educational anthropology in action (pp. 102-131). New York: Holt, Rinehart & Winston.

Morine-Dershimer, G. (1985). Talking, listening and learning in elementary school classrooms. New York: Longman.

Philips, S. (1982). The invisible culture: Communication in classroom and community on the Warm Springs reservation. New York: Longman.

Stodolsky, S. S. (1984a). Frameworks for studying instructional processes in peer work groups. In P. Peterson, L. Wilkinson, & M. Hallinan (Eds.), The social context of instruction: Group organization and group processes. (p. 107-124). New York: Academic Press.

Stodolsky, S. S. (1984b). Teacher evaluation: The limits of looking. Educational Researcher, 13(9), 11-18.

Weade, R. (1987). Curriculum'n'instruction: The construction of meaning. Theory into Practice, 26(1), 15-25.

Weade, R. & Green, J.L. (in press). Reading in the instructional context: An interactional sociolinguistic/ethnographic approach. In C. Emihovich (Ed.), Locating learning across the curriculum: Ethnographic perspectives on classroom research. Norwood, NJ: Ablex.

Zumwalt, K. K. (1986). Working together to improve teaching. In K. K. Zumwalt (Ed.), Improving teaching. (pp. 169-185). Washington D.C.: Association for Supervision and Curriculum Development.

Figure Captions

Figure 1. Teachers and classrooms available for sub-sample by levels of management effectiveness and student achievement.

Figure 2. Changes in social and academic task demands in Teacher A's lesson.

Figure 3. Changes in social and academic task demands in Teacher B's lesson.

Figure 4. Changes in social and academic task demands in Teacher C's lesson.

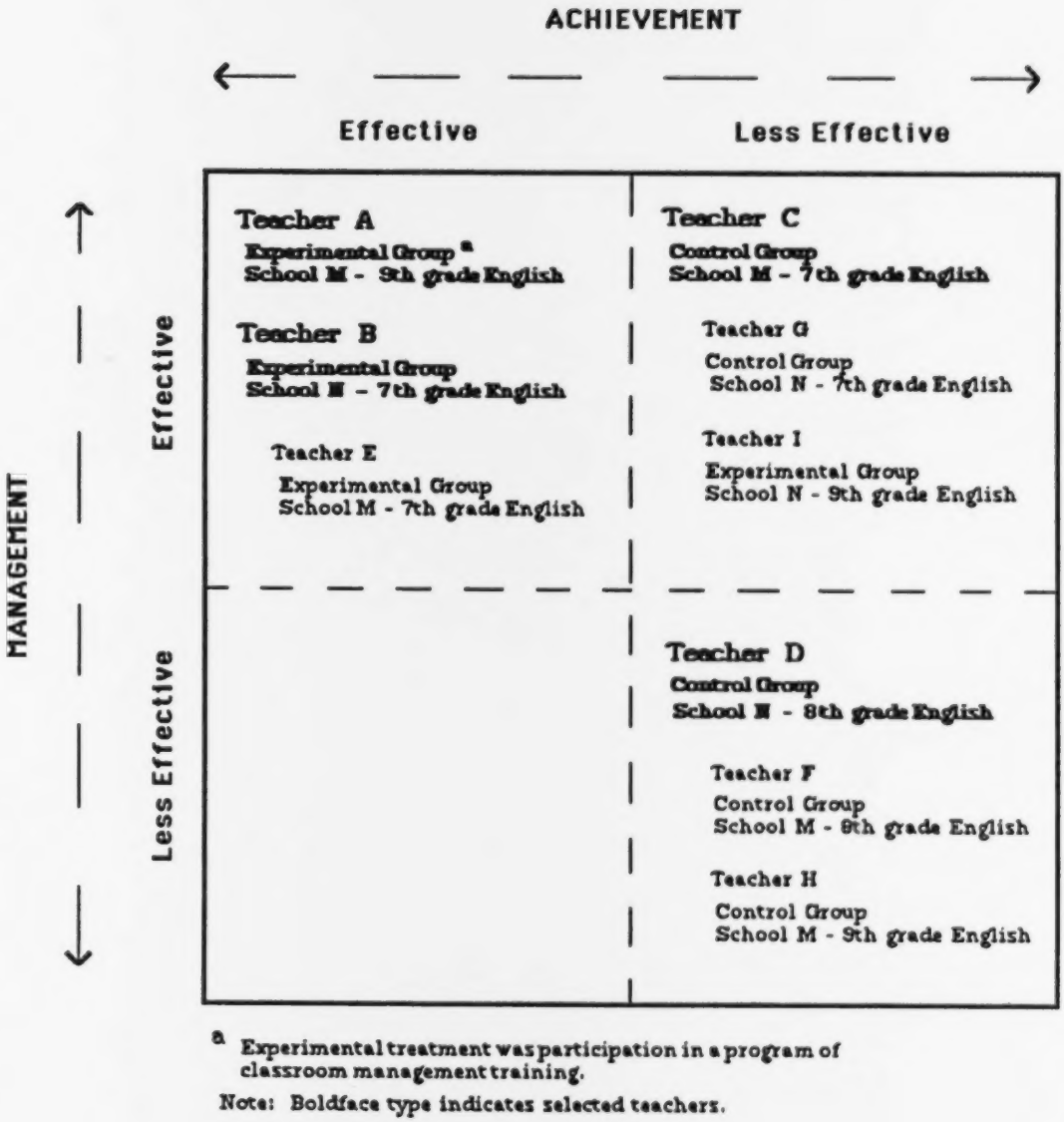
Figure 5. Changes in social and academic task demands in Teacher D's lesson.

Figure 6. Summary description of academic themes signalled by Teacher A, lesson phase 2.

Figure 7. Summary description of academic themes signalled by Teacher B, lesson phase 2.

Figure 8. Summary description of academic themes signalled by Teacher C, lesson phase 6.

Figure 9. Summary description of academic themes signalled by Teacher D, lesson phase 2.



[a] Experimental treatment was participation in a program of classroom management training.

Note: Boldface type indicates selected teachers.

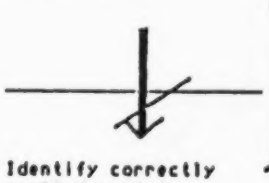
Figure 1. Description of teachers selected for sub-sample by level of management effectiveness and achievement effectiveness.

Phase	Social demand	Academic demand	Total
1	Respond when called on (at random).	Give past and past participle of given verb.	
	↓	↓	2
2	Volunteer by raising hand; respond when called on.	Give tense for given verb.	
	↓	↓	2
3	Respond when called on (at random).	Read sentence, supplying verb in correct tense (given present tense verb).	
	↓	↓	2
4	Respond when called on (at random); then volunteer another response (more than one correct answer) by raising hand; then respond when called on.	Given sentence with incorrect verb, read the sentence, correcting as you read.	
	↓	↓	2
5	Listen as T. gives correct answers; ask questions at end, if you have any.	Check paper - identifying verbs as active or passive - as T. gives answers.	
Total:	4	4	8

Phase	Social demand	Academic demand	Total
1	Number paper 1-23; then take test, working from test paper and reference list; pass paper to front when told to; receive paper for next part of lesson.	Identify auxiliary verbs in 23 sentences.	
	⚓⚓	⚓	3
2 .	Volunteer for turn by raising hand; respond when called on.	Give verb phrase; main verb, and auxiliary verb.	
	⚓⚓	⚓	3
3	Open book to p. 55; volunteer for turn by raising hand; respond when called on.	Give answer depending on T.'s question.	
	⚓	⚓	2
4	Number paper 1-18. Complete exercise on p. 56.	Identify verb phrase and auxiliary verb.	
Total:	5	3	8

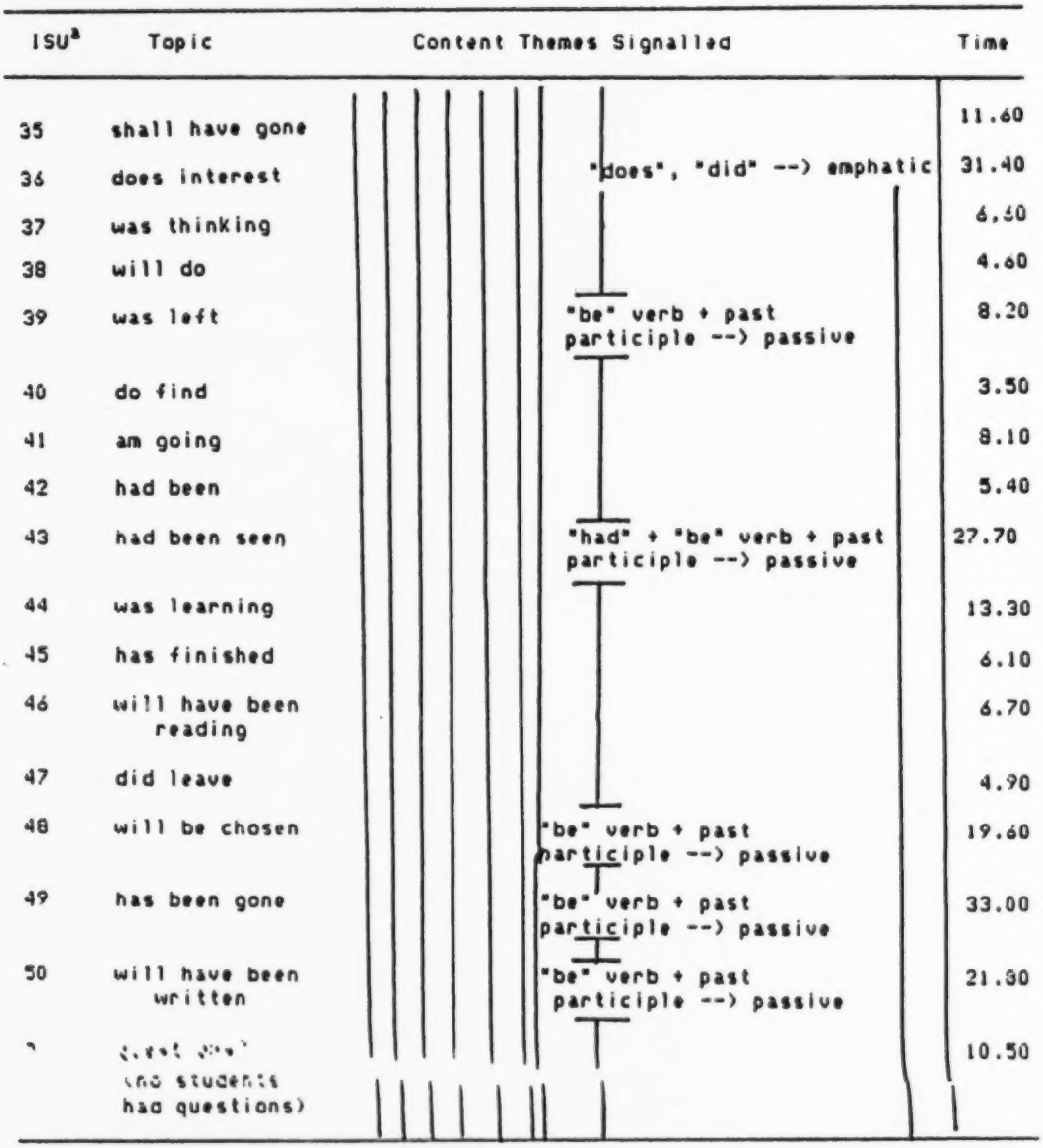
BEST COPY AVAILABLE

Phase	Social demand	Academic demand	Total
1	Listen as T. reads and write 1-25 on paper.	Spell word correctly.	
	↓	↓	2
2	Listen as T re-reads; pass in papers when told.	Check accuracy.	
	↓↓↓	↓↓	5
3	Get workbooks, turn to p. 18; respond when called on.	Say "anything you can remember about verbs."	
	↓	↓	2
4	Look on p. 18; listen.	Hear about "he/they" test.	
	↓	↓	2
5	Give group response (yes or no) after T says "He . . .; They . . ." from list in workbook.	Identify the verb.	
	↓↓	\	3
6	Respond when called on; work from list on board.	Identify the verb.	
	↓↓	↓	2
7	Number paper 1-20; write one word on paper from each sentence in book; raise hand if you have a question.	Identify the verb.	
Total:	10	6	16

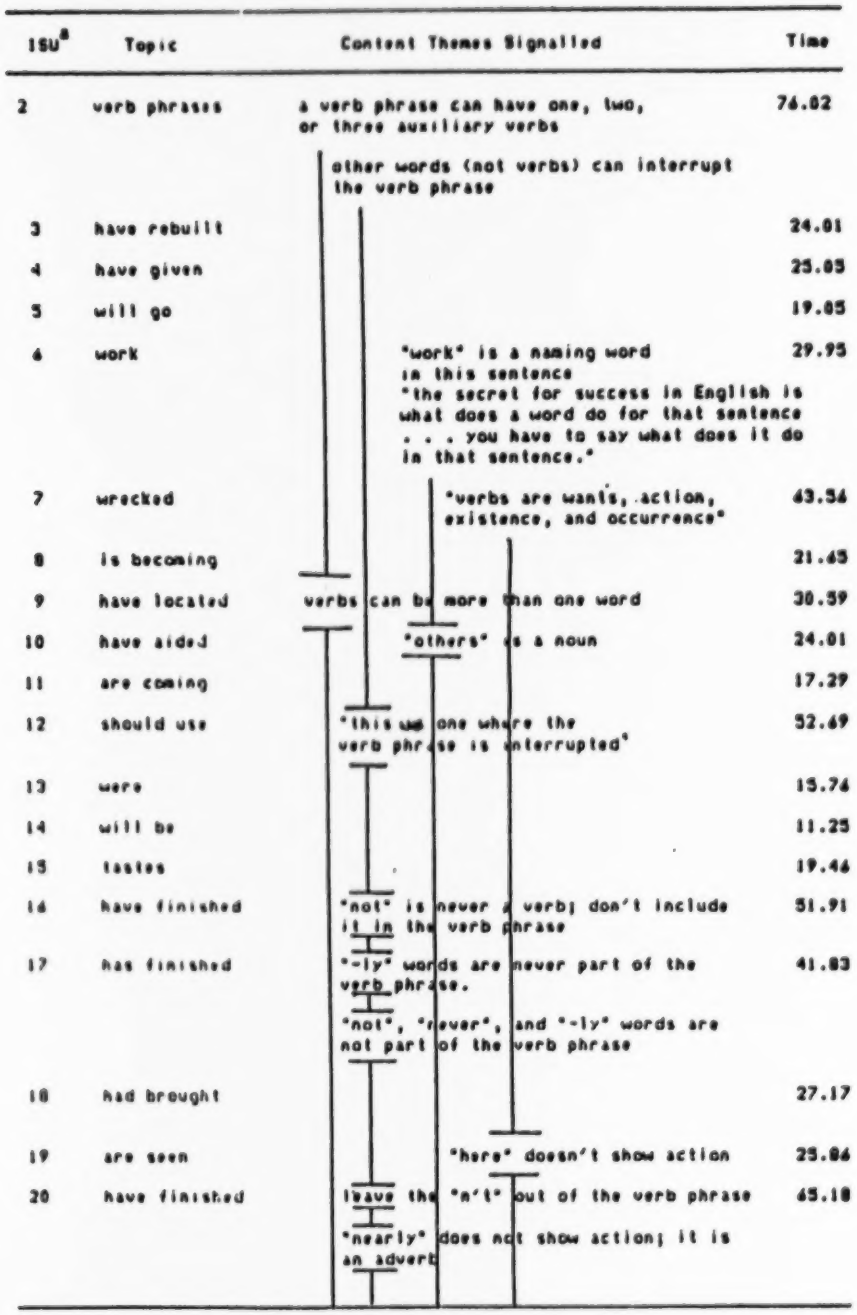
Phase	Social demand	Academic demand	Total
1	Listen for group assignment; get materials according to group (3 groups).	———	3
2	Group 1: Respond when called on; work from homework paper.	Pronounce and correctly spell word.	
3	Listen to instructions for spelling test.		4
4	Take test.	Identify correctly spelled word in a series of words.	
5	Exchange papers; then listen as T. gives answers.	Check correctly spelled word in each series.	3
Total:	0	2	10

ISU[a]	Topic	Content Themes Signalled	Time
21	setting expectations		15.20
22	had taught	"had" means past perfect	25.00
23	held	think about principle parts	49.80
24	is paving		7.50
25	lets	singular verbs end with "s"	21.80
26	were winning	present participle + "be" verb helper --> progressive	14.50
27	will toss	"will" + present = future	14.30
28	spelling "future"	there is no "r" in "future"	36.00
29	have sat	"have" + past participle --> present perfect	15.70
30	(procedural statement to Greg)		4.00
31	will have fallen	"shall have" and "will have" are future perfect helpers	13.40
32	were brought	"be" verb helper + past participle = passive	47.60
33	has been writing	i n g --> progressive	7.50
34	is given	"be" verb + past participle --> passive	8.60

(Figure continues)


ISU[a]
Topic
Content Themes Signalled
Time
35 shall have gone 11.60
36 does interest "does", "did" --> emphatic 31.40
37 was thinking 6.60
38 will do 4.60
39 was left "be" verb + past participle --> passive 8.20
40 do find 3.50
41 am going 8.10
42 had been 5.40
43 had been seen "had" + "be" verb + past participle --> passive 27.70
44 was learning 13.30
45 has finished 6.10
46 will have been reading 6.70
47 did leave 4.90
48 will be chosen "be" verb + past participle --> passive 19.60
49 has been gone "be" verb + past participle --> passive 33.00
50 will have been written "be" verb + past participle --> passive 21.80
10.50
and students had questions)

[a]ISU: Instructional sequence unit.



[a]ISU: Instructional sequence unit.

ISU[a]	Topic	Content Themes Signalled	Time
63	Setting expectations	Use the "he/they" test.	80.45
64	boasted		10.93
65	won	Once is an adverb.	46.92
66	was		11.98
67	spell	(a verb) is something you can do.	46.11
68	get		11.77
69	is	On a be verb, change "they" to "it", "was" to "were", and "is" to "are".	56.62
70	listen		8.22
71	spoke		7.37
72	is		10.63
73	are	Remember what we said on "be" verbs.	51.06
		Bright is an adjective.	
74	are		7.81
75	spell	Find something you can do.	58.41
		Forward is an adverb.	
76	asked		8.13
77	replied		12.88
78	are		8.38

[a] ISU: Instructional sequence unit.

Note: ⫽ indicates a break in signalled theme, e.g. in this case, an exception to the general applicability of the "he/they" test.

ISU[a]	Topic	Content Themes Signalled	Time (in seconds)
2	allowance		89.76
3	application		9.47
4	accurate		6.55
5	affair		4.85
6	announce		8.23
7	arrest		20.94
8	attention		16.65
9	acquaint		36.49
10	affectionate		5.50
11	accident		20.70
12	collection		14.10
13	correct		10.39
14	correspondent	There are 2 Rs in correspondent	26.39
15	connect		11.76
16	effort		9.58
17	effect		2.82
18	eclipse		49.34
19	offense		41.22
20	occasionally		15.70
21	/?/[b]		7.00
22	attend		8.62
23	assure		3.43

(Figure continues)

24	assistant	4.07
25	arrival	6.50
26	attempt	9.83
27	appear	3.54
28	assume	5.07
29	association	8.77
30	afford	137.77
31	attractive	5.25
32	diffuse	17.56
33	difficulty	7.99
34	differ	4.99
35	divide	5.16
36	impression	14.97
37	irrigation	5.13
38	illegal	7.40
39	/?/[b]	7.53
40	succeed	3.25
41	sufficient	16.58
42	[passing in papers]	47.30

[a] Instructional sequence unit.

[b] Inaudible; teacher signalled that student's response was correct.

Table 1

Teachers' mean ratings on selected management and student engagement variables.

Instructional Management	Teacher A	Teacher B	Teacher C	Teacher D
1. Describes objectives clearly	5.0	5.0	5.0	3.8
2. Directions for work are clear	5.0	4.5	4.5	3.3
3. Appropriate pacing of lesson	5.0	4.8	4.3	2.5
4. Monitors student work	5.0	4.5	4.8	2.0
5. Enforces work standards	5.0	4.9	4.3	1.8
Rules and Procedures				
6. Efficient administrative routines	5.0	5.0	5.0	2.4
7. Appropriate general procedures	5.0	5.0	5.0	1.7
Meeting Student Concerns				
8. Student success	5.0	4.3	4.3	3.2
9. Attention spans	5.0	4.3	4.3	1.9
Managing Pupil Behavior				
10. Restrictions on student movement	4.9	4.8	3.5	1.3
11. Rewards student behavior	5.0	4.5	4.2	1.3
12. Signals approp. behavior	3.5	4.4	2.0	1.3
13. Consistency in enforcing student behavior	5.0	4.8	3.9	1.3
14. Effective monitoring	5.0	4.4	4.6	1.8
Inappropriate Behavior				
15. Amount (1= none; 5 = 1/2 the class most of the time)	1.0	1.7	2.0	4.9
16. Ignores inappropriate behavior	-	2.3	4.0	4.9
17. Stopped quickly	-	4.7	4.3	2.0
Class Climate				
18. Task-oriented focus	5.0	4.8	4.5	2.4

(Table continues)

Table 1 (continued)

19. Relaxed, pleasant atmos.	5.0	4.8	4.5	3.0
Miscellaneous				
20. Avoidance behavior during seatwork (See #15 for scale)	1.0	1.3	1.3	3.0
21. Student cooperation & participation	4.8	4.3	4.3	2.3
Student Engagement				
22. Avg. % students off-task	0	3.7	7	33.3
23. Avg. % students on-task	100	89.3	88.4	55.0

* Scores are based on 5 point scales. Except where noted, 5= most characteristic and 1 = least characteristic.

These scores are averages across 6 observations for each of the 4 teachers.

Table 2

Student scores on pre- and post achievement tests by achievement level group, Teacher A.

	High Group (71-100)		Mid-group (31-70)		Low Group (1-30)	
	Student	Score	Student	Score	Student	Score
Pre-test						
SATBS[a]						
(Range: 1 - 98)						
	01	98	03	63	11	20
	02	78	04	51	12	20
			05	45	13	16
			06	43	14	16
			07	43	15	14
			08	42	16	06
			09	42	17	03
			10	34	18	02
					19	01
	n = 2		n = 8		n = 9	
Posttest						
SRA[b]						
(Range: 5 - 95)						
	01(+0)[c]	95	13(+1)	68	16(+0)	14
	08(+1)	91	04(+0)	68	17(+0)	09
	03(+1)	86	06(+0)	68	18(+0)	05
	02(+0)	77	05(+0)	68		
	10(+1)	77	07(+0)	68		
			19(+1)	55		
			09(+0)	55		
			14(+1)	50		
			12(+1)	45		
			15(+1)	41		
			11(+1)	36		
	n = 5		n =11		n = 3	

67 % of low group moved to mid-group.
37.5% of mid-group moved to high group.
0 % drop from high group.

N = 19

[a] SATBS: State Assessment Test of Basic Skills.

[b] SRA: Science Research Associates

[c] (+0): no group movement; (+1) movement up one group level.

Table 3

Student scores on pre- and post achievement tests by achievement level group, Teacher B.

	High Group (71-100)		Mid-group (31-70)		Low Group (1-30)	
	Student	Score	Student	Score	Student	Score
Pre-test						
CRT[a] (Range: 0 - 83)						
	01	83	03	61	11	26
	02	74	04	61	12	22
			05	61	13	22
			06	52	14	22
			07	52	15	17
			08	51	16	13
			09	39	17	04
			10	35	18	00
	n = 2		n = 8		n = 8	
Posttest						
CRT (Range: 4 - 91)						
	01(+0)[b]	91	08(+0)	70	13(+0)	26
	03(+1)	83	05(+0)	70	16(+0)	26
	02(+0)	83	07(+0)	61	17(+0)	13
	04(+1)	74	06(+0)	57	18(+0)	04
			10(+0)	44		
			09(+0)	44		
			12(+1)	35		
			14(+1)	35		
			11(+1)	35		
	n = 4		n = 9		n = 4	

37.5% of low group moved to mid-group.
25 % of mid-group moved to high group.
0 % drop from high group.

N = 18

[a] CRT: Criterion-referenced test, language arts.

[b] (+0): no group movement; (+1): movement up one group.

Table 4

Student scores on pre- and post achievement tests by achievement level group. Teacher C.

	High Group (71-100)		Mid-group (31-70)		Low Group (1-30)	
	Student	Score	Student	Score	Student	Score
Pre-test						
CRT[a] (Range: 4 - 74)						
	01	74	02	70	14	30
			03	70	15	26
			04	65	16	22
			05	65	17	17
			06	65	18	13
			07	65	19	13
			08	65	20	09
			09	65	21	04
			10	57		
			11	52		
			12	52		
			13	52		
	n = 1		n = 12		n = 8	
Posttest						
CRT (Range: 4 - 78)						
	01(+0)	78	08(+0)	70	15(+0)	30
			06(+0)	65	14(+0+	26
			03(+0)	65	16(+0+	22
			05(+0)	61	17(+0)	22
			02(+0)	61	19(+0)	17
			07(+0)	61	18(+0)	13
			09(+0)	61	20(+0)	04
			11(+0)	57	21(+0)	04
			10(+0)	52		
			12(+0)	52		
			04(+0)	39		
			13(+0)	39		
	n = 1		n =12		n = 8	

No movement between groups.

N = 21

[a] CRT: Criterion-referenced test, language arts.

Table 5

Student scores on pre- and post achievement tests by achievement level group. Teacher D.

	High Group (71-100)		Mid-group (31-70)		Low Group (1-30)	
	Student	Score	Student	Score	Student	Score
Pre-test						
CRT[a]						
(Range: 12-92)						
	01	92	09	64	20	28
	02	92	10	60	21	24
	03	84	11	56	22	24
	04	84	12	56	23	16
	05	80	13	48	24	16
	06	80	14	48	25	16
	07	80	15	48	26	12
	08	72	16	44		
			17	44		
			18	36		
			19	36		
	n = 8		n = 11		n = 7	
Posttest						
CRT						
(Range: (12-96)						
	01(+0)		08(+0)	68	20(+0)	28
	02(+0)		09(+0)	64	21(+0)	24
	02(+0)		10(+0)	60	22(+0)	20
	03(+0)		11(+0)	56	23(+0)	20
	04(+0)		12(+0)	44	24(+0)	12
	05(+0)		13(+0)	44	25(+0)	12
	06(+0)		14(+0)	40	26(+0)	8
	07(+0)		15(+0)	40		
			16(+0)	44		
			17(+0)	40		
			19(+0)	36		
	n = 7		n =12		n = 7	

0% of low group moved to mid-group.
0 % of mid-group moved to high group.
1 student dropped from high to mid-group.

3 students gained in score.
12 students showed no gain.
11 students lost points.

N = 26

[a] CRT: Criterion-referenced test, language arts.

Table 6

Summary description of social and academic tasks in selected lesson phases, Teachers A, B, C and D [a].

Teacher	Lesson Phase	Social Task	Academic Task	Length (seconds)	ISU[b] f	ISU[b] X length	IU[c] f	IU[c] X length	IU/ISU[d]
A	2	Raise hand for turn; respond when called on by name, at random.	Given a verb, name the tense; check answer on your paper.	514.7	32	15.9	93	5.5	2.9
B	2	Raise hand for turn; respond when called on by name, at random.	Given a sentence, name the verb phrase, main verb and and auxiliary verb; check answer on your paper.	642.3	19	33.8	114	5.6	6.0
C	6	Raise hand for turn; respond when called on by name, at random.	Given a sentence on the board, read the sentence and name the verb.	395.3	16	24.7	107	4.0	6.7
D	2	Respond when called on by name; do number of words indicated at designation of turn.	Given a list, pronounce and correctly spell the words; check answers on your paper.	616.1	41	15.0	116	6.4	2.8

a Lesson phases were selected on the basis of similarities in social task demands.
b Instructional sequences units (e.g., items).
c Interaction Units.
d Average frequency of interactions per item.